

SUPPORT MEMBER FOR A SUPERCONDUCTING MAGNET ASSEMBLY

Abstract

A superconducting magnet assembly is described wherein the magnet cartridge is suspended within the vacuum chamber by a single support member extending from a wall of the vacuum chamber to the magnet cartridge. In one aspect, the support member includes a support tube and a joint attached to an end of the support tube. The joint is attached to the wall of the outer vacuum chamber, and provides at least one degree of freedom to the support tube relative to the wall. In another aspect, a joint is attached to an opposite end of the support tube, and is attached to the magnet cartridge for providing at least one degree of freedom to the support tube relative to the magnet cartridge. In another aspect, the support is constructed from one or more sections and the material choice is governed by the requirements for strength, stiffness, and thermal conductivity.